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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,552	05/22/2000	Jaime L. Prieto Jr.	22-0099	1282

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EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 12/17/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/575,552

Applicant(s)

PRIETO JR. ET AL.

Examiner

Prenell P Jones

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 22 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 13-21 is/are allowed.
- 6) ☐ Claim(s) 1-3 and 5-10 is/are rejected.
- 7) ☐ Claim(s) 4, 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claim 8 recites the limitation "modifying steps" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 2667

Applicant is claiming "modifying steps on board satellite" which is not described in the specification.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgensen in view of Prieto et al.

Regarding claims 1-3, 5, 6, 8 and 10, Jorgensen discloses (Abstract) communication in a satellite system that includes (Fig. 6-8, col. 48, line 26 thru col. 50, line 30) communication in the uplink/downlink directions, upstream data/downstream data, downlink/uplink flow scheduler, resource allocator allocates resource bandwidth, (col. 3, line 45 thru col. 4, line 2, col. 48, line 25 thru col. 49, line 67, col. 51, line 11 thru 52, line 67) data packets placed in priority class queues based on quality of service requirements, prioritization and scheduling of bandwidth is performed in the uplink path/channel, scheduling functions/resource allocation placed at the base station, scheduling in real-time, scheduling takes in account resource requirements, service level agreement, (col. 14, line 39 thru col. 16, line 35), QOS mechanism monitors/optimizes traffic parameters, (col. 22, line 1-67) IP streams of data, appropriate

Art Unit: 2667

QOS parameters are assigned to data streams based on priority, monitoring services (QOS), real-time transport protocol (RTP) provides mandatory monitoring, (col. 60, line 37-60) temporarily store packets, (col. 70, line 45-61) lookup table for QoS requirements/reservation request (service schedule lookup table), col. 17, line 49 thru col. 18, line 9) fair queuing algorithm used to calculate guaranteed queuing resources based on bandwidth availability. Jorgensen is silent on storing packet data from a plurality of channels associated with a priority class queue. In analogous art, Prieto discloses (Abstract, Fig. 4, col. 9, line 25-67) a plurality of uplink channels storing packets in priority class queues. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have been motivated to implement storing data from multiple channels as taught by Prieto with the teachings of Jorgensen for the purpose of accommodating a larger amount of data/data users communicating in a communication system.

Regarding claim 7, as indicated above, Jorgensen discloses (Abstract) communication in a satellite system that includes (Fig. 6-8, col. 48, line 26 thru col. 50, line 30) communication in the uplink/downlink directions, upstream data/downstream data, downlink/uplink flow scheduler, resource allocator allocates resource bandwidth, (col. 3, line 45 thru col. 4, line 2, col. 48, line 25 thru col. 49, line 67, col. 51, line 11 thru 52, line 67) data packets placed in priority class queues based on quality of service requirements, prioritization and scheduling of bandwidth is performed in the uplink path/channel, scheduling functions/resource allocation placed at the base station,

Art Unit: 2667

scheduling in real-time, scheduling takes in account resource requirements, service level agreement, (col. 14, line 39 thru col. 16, line 35), QOS mechanism monitors/optimizes traffic parameters, (col. 22, line 1-67) IP streams of data, appropriate QOS parameters are assigned to data streams based on priority, monitoring services (QOS), real-time transport protocol (RTP) provides mandatory monitoring, he further discloses (col. 70, line 45-61) lookup table for QoS requirements/reservation request (service schedule lookup table).

Regarding claim 9, as indicated above, Jorgensen discloses (Abstract) communication in a satellite system that includes (Fig. 6-8, col. 48, line 26 thru col. 50, line 30) communication in the uplink/downlink directions, upstream data/downstream data, downlink/uplink flow scheduler, resource allocator allocates resource bandwidth, (col. 3, line 45 thru col. 4, line 2, col. 48, line 25 thru col. 49, line 67, col. 51, line 11 thru 52, line 67) data packets placed in priority class queues based on quality of service requirements, prioritization and scheduling of bandwidth is performed in the uplink path/channel, scheduling functions/resource allocation placed at the base station, scheduling in real-time, scheduling takes in account resource requirements, service level agreement, (col. 14, line 39 thru col. 16, line 35), QOS mechanism monitors/optimizes traffic parameters, (col. 22, line 1-67) IP streams of data, appropriate QOS parameters are assigned to data streams based on priority, monitoring services (QOS), real-time transport protocol (RTP) provides mandatory monitoring. He further

Art Unit: 2667

discloses (col. 17, line 49 thru col. 18, line 9) fair queuing algorithm used to calculate guaranteed queuing resources based on bandwidth availability.

Allowable Subject Matter

3. Claims 13-21 are allowed.
4. Claims 4, 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Although the cited art, Jorgensen and Prieto et al, discloses storing packets in priority class queues, communication in a satellite system that includes, communication in the uplink/downlink directions, upstream data/downstream data, downlink/uplink flow scheduler, resource allocator allocates resource bandwidth, data packets placed in priority class queues based on quality of service requirements, prioritization and scheduling of bandwidth is performed in the uplink path/channel, scheduling functions/resource allocation placed at the base station, scheduling in real-time, scheduling takes in account resource requirements, service level agreement, QOS mechanism monitors/optimizes traffic parameters, IP streams of data, appropriate QOS parameters are assigned to data streams based on priority, monitoring services (QOS), real-time transport protocol (RTP) provides mandatory monitoring, temporarily store packets, lookup table for QoS requirements/reservation request (service schedule

Art Unit: 2667

lookup table), fair queuing algorithm used to calculate guaranteed queuing resources based on bandwidth availability. Jorgensen is silent on storing packet data from a plurality of channels associated with a priority class queue, lookup table for QoS requirements/reservation request (service schedule lookup table, a plurality of uplink channels, they fail to teach/suggest a scheduler changing an amount of bandwidth allocated to at least one queue while said queue is buffering data packets between an uplink and downlink, measuring a phase of each stream stored in priority class queue as being indicative of an amount of the time lapsed since a data packet from a particular priority-class queue was output to the downlink channel.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P Jones whose telephone number is 703-305-0630. The examiner can normally be reached on 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Prenell Jones

December 12, 2003


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 12/12/03